

[2008/09/09 12:01] You: OK - Welcome everyone. I'm not entirely sure how this is going to work out tonight but we will try
[2008/09/09 12:02] You: There has been so much publicity already, it's hard to get the balance right
[2008/09/09 12:02] Lionel Blaisdale is Online
[2008/09/09 12:02] You: But the way it works is I will give a little background and present three questions that we will hopefully get some sort of discussion going on
[2008/09/09 12:02] Minnie Atlass: hi Lamby
[2008/09/09 12:02] You: Hi Lmabchop
[2008/09/09 12:03] Scathach Rhiadra: Hi Lambchop
[2008/09/09 12:03] Lambchop Magic: Hi folks
[2008/09/09 12:03] You: The science content is very low to try and make it accessible to the non-scientists
[2008/09/09 12:03] You: After the event, I'll post some links that you can go to if you want to learn more

[2008/09/09 12:04] You: So - The Large Hadron Collider.....

[2008/09/09 12:04] You: If you want to find out how a watch works, one thing you can do is to take it apart and examine it. This is easy to do because the forces that hold watches together are easy to overcome.
[2008/09/09 12:04] You: Elementary particles, the tiniest parts that make up everything we experience in the universe, are held together by extremely strong forces (Called imaginatively, "The strong nuclear force"), so gently prying them apart does not work. What is the best way to separate things when they are held together very tightly? Smash them together REALLY HARD!!

[2008/09/09 12:04] You: In essence, this is what particle accelerators do. The more Fundamental the particle, the harder you have to smash them to break them up. Particle Accelerators are just very powerful hammers.
[2008/09/09 12:05] You: Physicists have been smashing things together to try and break matter down into it's component parts since the late 1800's.



[2008/09/09 12:05] You: The first to do this was J.J Thompson around 1897. He discovered the Electron which he called "Corpuscles" , for which he was awarded the Nobel Prize in 1906. The size of the "hammer" needed to do this was relatively small and in fact, you would have had one of these accelerators in your house if you ever owned a Cathode Ray Tube Television set.
[2008/09/09 12:06] You: Since then, more and more advanced accelerators have been invented, each capable of smashing atoms together at higher and higher energies.

[2008/09/09 12:06] You: In 1919, Ernest Rutherford discovered the Proton by shooting Alpha particles, which have the same structure as a Helium Nucleus, into Nitrogen Gas and effectively splitting the Atom.

The first device to be called an accelerator was called a Resonance Linear Accelerator and was used to split the Lithium Atom.

[2008/09/09 12:07] You: The largest and most ambitious particle accelerator ever built is the Large Hadron Collider at CERN. In fact, it is the most ambitious science project of all time.

[2008/09/09 12:07] You: Machines like the LHC are huge and although not expensive (in relative terms), need many people to analyse and fully understand the science. Even though the Nobel Prize for Physics continues to be awarded to individuals, the work is carried out more often than not by large teams. This is no less the truth for the LHC.

[2008/09/09 12:07] You: Prize - Sorry!

[2008/09/09 12:08] You: One of the goals of the LHC has been to communicate the science aims to the general public. After all, you are paying for the science to be done



How well are the scientific

goals being communicated?

[2008/09/09 12:08] You: This brings us to our first question.....

[2008/09/09 12:09] You: How well are the scientific goals being communicated?

[2008/09/09 12:09] CC Exonar: Hi All

[2008/09/09 12:09] You: HI CC

[2008/09/09 12:09] Sian Andel: Hi all

[2008/09/09 12:09] You: Hi Sian

[2008/09/09 12:09] DeeDee Bookmite: Hi CC

[2008/09/09 12:09] Titiana Haystack: think it all depends on the media

[2008/09/09 12:09] You: In what way Titiana?

[2008/09/09 12:09] Mcdude Snoodle is Offline

[2008/09/09 12:09] Titiana Haystack: if it's not reported we won't know

[2008/09/09 12:10] You: But do you think it has been reported

adequatley?

[2008/09/09 12:10] Merlin Ethaniel: Not Really

[2008/09/09 12:10] You: What information have you seen in the media?

[2008/09/09 12:10] Scathach Rhiadra: different types of media have taken different views

[2008/09/09 12:10] smithb Windlow: None.

[2008/09/09 12:10] Merlin Ethaniel: Virtually None.

[2008/09/09 12:10] Minnie Atlass is Offline

[2008/09/09 12:10] You: Merlin, would you like to expand on that?

[2008/09/09 12:10] Titiana Haystack: yes, except that some people say it's dangerous and that doesn't get coeverage

[2008/09/09 12:10] You: oh

[2008/09/09 12:11] You: I thought the storys about the dangers had been over reported

[2008/09/09 12:11] Merlin Ethaniel: The main coverage has been scaremongering about black holes

[2008/09/09 12:11] Titiana Haystack: lol Becka

[2008/09/09 12:11] Penbleth Sweetwater: My kids seem determined it cause the end of the world, with a four year delay.

[2008/09/09 12:11] Sian Aniel: A lot of coverage in New Sc, BBC web site, etc. Everyone at work is looking forward to end of world tomorrow so it seems well known

[2008/09/09 12:11] Minnie Atlass is Online

[2008/09/09 12:11] You: lol - That's an interesting viewpoint of many scaremongers

[2008/09/09 12:11] Scathach Rhiadra: but serious programming has been done to present the science, mostly by the BBC

[2008/09/09 12:11] You: That nothing will happen on Wednesday and it will just be a delayed end

[2008/09/09 12:12] You: How many people here have watched the BBC programs?

[2008/09/09 12:12] Scathach Rhiadra: me!

[2008/09/09 12:12] Merlin Ethaniel: As long as I finish my degree first!

[2008/09/09 12:12] Sian Aniel: i've seen two

[2008/09/09 12:12] Breen Mathy: I haven't

[2008/09/09 12:12] Dom Easterwood: No

[2008/09/09 12:12] smithb Windlow: Nop

[2008/09/09 12:12] Titiana Haystack: no

[2008/09/09 12:12] Lambchop Magic: no

[2008/09/09 12:12] Firestone Bookmite: I have

[2008/09/09 12:12] Penbleth Sweetwater: no

[2008/09/09 12:12] Sian Aniel: BBC4 so not highly visible

[2008/09/09 12:12] Minnie Atlass: nooo

[2008/09/09 12:12] You: ok. Are you intending to watch or listen to any of them tomorrow?

[2008/09/09 12:13] Merlin Ethaniel: Yes

[2008/09/09 12:13] Penbleth Sweetwater: yes

[2008/09/09 12:13] Lambchop Magic: yes

[2008/09/09 12:13] Breen Mathy: If I get time yes

[2008/09/09 12:13] Firestone Bookmite: yes

[2008/09/09 12:13] Penbleth Sweetwater: Although I thought it had been delayed.

[2008/09/09 12:13] Dom Easterwood: Yes if time allows

[2008/09/09 12:13] smithb Windlow: If I can get my head out of the books

[2008/09/09 12:13] Titiana Haystack: not able to. travelling. Might hear radio

[2008/09/09 12:13] Sian Aniel: yes - radio 4 in morning then later my husband will record, esp. Torchwood!

[2008/09/09 12:13] Minnie Atlass: maybe what time?

[2008/09/09 12:14] You: The switch on is at around 8:30 in the morning

[2008/09/09 12:14] Penbleth Sweetwater: ok

[2008/09/09 12:14] You: but it will be a gradual process

[2008/09/09 12:14] You: What is happening tomorrow is a beam of Protons will be circulated around the full 27 km ring

[2008/09/09 12:14] Merlin Ethaniel: So roughly how long to the first big bang?

[2008/09/09 12:14] Titiana Haystack: can it go wrong? eg not start?

[2008/09/09 12:14] Penbleth Sweetwater: will there be a bang?

[2008/09/09 12:14] You: this is the first time this has happened

[2008/09/09 12:15] You: The first big bang will happen in October

[2008/09/09 12:15] You: But it isn't really a "Big Bang"

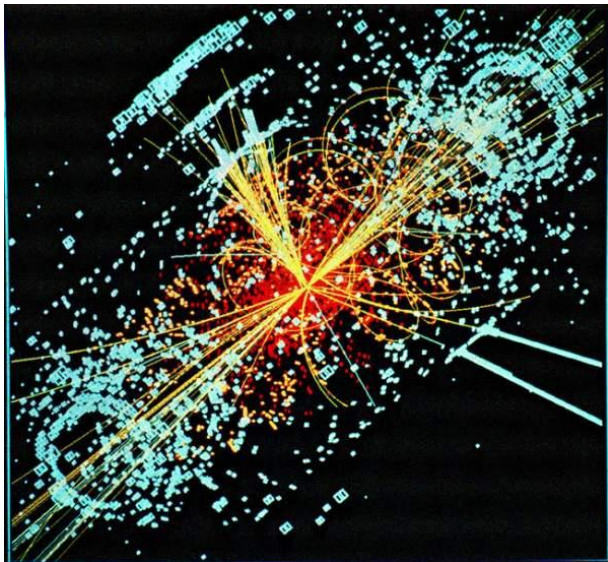
[2008/09/09 12:15] Merlin Ethaniel: My only regret is I won't be there to see it happen

[2008/09/09 12:15] Scathach Rhiadra: when was that announced Becka?

[2008/09/09 12:15] smithb Windlow: Ah. lots of time to buy some brown trousers then

[2008/09/09 12:15] You: the energys are woefully short of theose present at the beginning of the universe
[2008/09/09 12:15] Minnie Atlass is Offline
[2008/09/09 12:15] You: What was what announced Scath?
[2008/09/09 12:15] Penbleth Sweetwater: just as well.
[2008/09/09 12:16] Lionel Blaisdale is Offline
[2008/09/09 12:16] Scathach Rhiadra: Brian Cox said on the BBC program that they were going for it tomorrow
[2008/09/09 12:16] Minnie Atlass is Online
[2008/09/09 12:16] Scathach Rhiadra: not risking a warmup
[2008/09/09 12:16] Eshala Tabacznyk: Hi all sorry I'm late
[2008/09/09 12:17] DeeDee Bookmite: Hi Esh
[2008/09/09 12:17] You: I think the get people fired up it has to be billed as a big event.
[2008/09/09 12:17] Sian Andel: Hi
[2008/09/09 12:17] Minnie Atlass: hi Esh
[2008/09/09 12:17] You: The reality is I think it will be something akin to y2K
[2008/09/09 12:17] Lambchop Magic: hi esh
[2008/09/09 12:17] You: Hi Esh
[2008/09/09 12:17] You: There will be no "Big red button"
[2008/09/09 12:17] Merlin Ethaniel: For their sakes I hope that something happens.
[2008/09/09 12:17] You: It will be a gradual process over the course of the day
[2008/09/09 12:17] Sian Andel: just a return key
[2008/09/09 12:18] Breen Mathy: I imagined it would be safer to do is gradually, I'm shocked they're trying to do itini one day
[2008/09/09 12:18] Scathach Rhiadra: no, but they are going to smash protons together?
[2008/09/09 12:18] You: The accelerators integrity has not yet been tested
[2008/09/09 12:18] Sian Andel: if they do it gradulaly the equipment could be damaged before they gdo it for live
[2008/09/09 12:19] Breen Mathy: Wow
[2008/09/09 12:19] You: They need to make sure that the ring is fully operational
[2008/09/09 12:19] Merlin Ethaniel: So that may go bang instead?
[2008/09/09 12:19] You: exactly Sian
[2008/09/09 12:19] Scathach Rhiadra: yes Sian, that was what I heard
[2008/09/09 12:19] You: That's why they decided not to test it first as the delay if something went wrong would be costly
[2008/09/09 12:19] You: sthat's not to say they haven't planned for every eventuality
[2008/09/09 12:20] Merlin Ethaniel: Bit of a risk isn't it?
[2008/09/09 12:20] You: Do you think it is?
[2008/09/09 12:20] Breen Mathy: Im very surprised, it's supposed to run for years
[2008/09/09 12:20] Breen Mathy: it's not as though they do it once and switch off
[2008/09/09 12:20] You: INdeed it is. It does feel like a lack of faith in the planning doesn't it?
[2008/09/09 12:21] You: Does anyone know what the actual goals of the experiments themselves are?
[2008/09/09 12:21] Scathach Rhiadra: like they are afraid they may never get the chance again!
[2008/09/09 12:21] Merlin Ethaniel: Not really
[2008/09/09 12:21] Titiana Haystack: oops. no

[2008/09/09 12:21] You: lol @Scath
 [2008/09/09 12:21] Sian Anel: to find the higgs boson and so confirm or not the model of the creation of the universe
 [2008/09/09 12:21] You: Almost
 [2008/09/09 12:21] Penbleth Sweetwater: ah
 [2008/09/09 12:21] Sian Anel: and lots of other things
 [2008/09/09 12:21] You: LHC experiments will address questions such as what gives matter its mass, what the invisible 96% of the Universe is made of, why nature prefers matter to antimatter and how matter evolved from the first instants of the Universe's existence.
 [2008/09/09 12:21] Penbleth Sweetwater: nice save
 [2008/09/09 12:22] Scathach Rhiadra: to find out how some particles gain mass
 [2008/09/09 12:22] You: Exactly
 [2008/09/09 12:22] You: higgs
 [2008/09/09 12:22] Merlin Ethaniel: What about this 'Dark Matter'
 [2008/09/09 12:22] You: does that word mean anything to anyone?
 [2008/09/09 12:23] Scathach Rhiadra: dark matter?
 [2008/09/09 12:23] Titiana Haystack: Only from Pullman's trilogy
 [2008/09/09 12:23] You: Merlin? What about the Dark Matter?
 [2008/09/09 12:23] Merlin Ethaniel: From what I've heard it is what makes up a large proportion of the matter in the universe
 [2008/09/09 12:23] Sian Anel: higgs - particle invented to amke a theory work? Very exciting if it exists, predcitions tru etc
 [2008/09/09 12:24] Scathach Rhiadra: and it doesn't reflect light so seems invisible
 [2008/09/09 12:24] You: Indeed Sian. And that's is one of the fundamental goals of the ATLAS experiment



[2008/09/09 12:24] You: in the board you can see a simulation of what the picture of the higgs will look like
 [2008/09/09 12:24] You: it's a simulation
 [2008/09/09 12:24] Sian Anel: dark matter is needed to expalin how galaxies were formed
 [2008/09/09 12:25] You: (I'll come back to Dark Matter in a second Merlin)
 [2008/09/09 12:25] You: Can you see the two longest and boldest tracks?
 [2008/09/09 12:25] Eshala
 Tabacznyk: yes
 [2008/09/09 12:25] Lambchop Magic: the ones to the right
 [2008/09/09 12:26] You: Most of the particles that come out of the protons when they are smashed together will be detected at the inner parts of the ATLAS detector
 [2008/09/09 12:26] Scathach Rhiadra: yes
 [2008/09/09 12:26] Titiana Haystack: /
 [2008/09/09 12:26] Titiana Haystack: in blue?
 [2008/09/09 12:26] Breen Mathy: In blue leaving the bottom/right?
 [2008/09/09 12:26] You: If a combination of Muons and Electrons are produced and make it out to the outer parts of the detecetor
 [2008/09/09 12:26] You: THis will be evidence of the Higgs Boson

[2008/09/09 12:26] You: the "giver of Mass"
[2008/09/09 12:27] You: Yes breen
[2008/09/09 12:27] You: The detector actually is not designed to "see" the Higgs Boson
[2008/09/09 12:27] Scathach Rhiadra: could the Higgs boson be a field rather than a particle?
[2008/09/09 12:27] You: But the remnants of it when it decays
[2008/09/09 12:27] You: It is a field Scath
[2008/09/09 12:27] You: Or at least was
[2008/09/09 12:28] You: it no longer exists in the universe today
[2008/09/09 12:28] Scathach Rhiadra: ah, so they are not expecting to actually see it, but its effect
[2008/09/09 12:28] You: Which is why we have to look back to the beginning
[2008/09/09 12:28] You: exactly
[2008/09/09 12:28] Merlin Ethaniel: Sounds like sub atomic fossil hunting.
[2008/09/09 12:29] You: And that's exactly what it is.
[2008/09/09 12:29] Anton Sweetwater is Online
[2008/09/09 12:29] Sian Anandel: will it detect all the other things that disappeared after a few seconds, all those other quarks?
[2008/09/09 12:29] You: So - Dark Matter
[2008/09/09 12:29] Scathach Rhiadra: good description Merlin
[2008/09/09 12:29] You: Good question Sian
[2008/09/09 12:29] You: Does everyone know what a Quark is?
[2008/09/09 12:29] Merlin Ethaniel: yes
[2008/09/09 12:29] Breen Mathy: yes
[2008/09/09 12:29] Scathach Rhiadra: yes
[2008/09/09 12:29] Sian Anandel: yes
[2008/09/09 12:29] Titiana Haystack: cheese?
[2008/09/09 12:30] Titiana Haystack: lol
[2008/09/09 12:30] Scathach Rhiadra: lol
[2008/09/09 12:30] You: OK Cool - I thought you were all history ;)
[2008/09/09 12:30] Merlin Ethaniel: lol
[2008/09/09 12:30] Sian Anandel: true and low fat
[2008/09/09 12:30] Eshala Tabacznyk: I was thinking of Quorn lol
[2008/09/09 12:30] Titiana Haystack: that's it
[2008/09/09 12:30] You: Cheese - No that's Wallace and Gromit
[2008/09/09 12:30] Penbleth Sweetwater: and taste free
[2008/09/09 12:30] You: lol
[2008/09/09 12:30] Dom Easterwood: lol
[2008/09/09 12:30] You: So the theory suggests that there are no free quarks in the universe today
[2008/09/09 12:30] You: the theory being the standard model of particle physics
[2008/09/09 12:31] You: All of the quarks are bound together in the protons and neutrons that make up atomic nuclei
[2008/09/09 12:32] You: So do we want to talk about Dark Matter?
[2008/09/09 12:32] You: matter
[2008/09/09 12:32] You: ooh - I did it twice
[2008/09/09 12:32] Scathach Rhiadra: yes
[2008/09/09 12:32] Lambchop Magic: yup
[2008/09/09 12:32] Sian Anandel: yes
[2008/09/09 12:32] Breen Mathy: yes
[2008/09/09 12:32] You: What was your question Merlin?
[2008/09/09 12:32] smithb Windlow: yes
[2008/09/09 12:33] Merlin Ethaniel: Sorry, had to answer the door. have I missed anything?

[2008/09/09 12:33] You: lol - We came back to Dark Matter
[2008/09/09 12:34] You: I wondered what was your question?
[2008/09/09 12:34] Merlin Ethaniel: Ah. I can't quite remember.
[2008/09/09 12:34] Merlin Ethaniel: It was something to with dark matter though.
[2008/09/09 12:34] You: Dark and mysterious
[2008/09/09 12:35] You: So does dark matter exist really do you think?
[2008/09/09 12:35] Merlin Ethaniel: There has to be somthing there as the effects can be seen.
[2008/09/09 12:35] Titiana Haystack: It's only a label. Maybe there are lots of dark things wse cant' see
[2008/09/09 12:35] Sian Anandel: i'm sceptical but there are rumours its effects have been detetected - extra protons?
[2008/09/09 12:36] Scathach Rhiadra: well is its existance not required to fulfil the current model?
[2008/09/09 12:36] You: OK - Dark matter is a way of explaining the rotations of galaxies
[2008/09/09 12:36] Sian Anandel: it might not be matter
[2008/09/09 12:36] Merlin Ethaniel: The BBC news had a computer model last night showing where the dark matter should be.
[2008/09/09 12:36] You: It's existence is required to complete the standard model but what about other explanations?
[2008/09/09 12:37] Scathach Rhiadra: exactly
[2008/09/09 12:37] You: Think about it as mass we cannot see see
[2008/09/09 12:37] Merlin Ethaniel: Einstiens Cosmological Constant?
[2008/09/09 12:37] You: which technically is what it is
[2008/09/09 12:37] You: Yes Merlin. That helps explain the structure of the universe
[2008/09/09 12:38] You: There are many and conflicting theories about Dark Matter
[2008/09/09 12:38] You: Some people think it is composed of massive "particles" called MACHOs
[2008/09/09 12:38] Sian Anandel: is that why the cosmological constant has a density? I couldn't visualise that
[2008/09/09 12:38] You: Massive Compact Halo Objects
[2008/09/09 12:38] You: Like big planets we can't see
[2008/09/09 12:38] Merlin Ethaniel: Thought up by a bloke?
[2008/09/09 12:38] You: but small ;)
[2008/09/09 12:39] You: lol
[2008/09/09 12:39] Eshala Tabacznyk: lol
[2008/09/09 12:39] You: Theother theory are WIMPS
[2008/09/09 12:39] You: also thought up a bloke probably
[2008/09/09 12:39] You: Cosmology is ful of 'em
[2008/09/09 12:39] Eshala Tabacznyk: blokes or wimps?
[2008/09/09 12:39] Scathach Rhiadra: lol
[2008/09/09 12:39] Merlin Ethaniel: both
[2008/09/09 12:39] Dom Easterwood: lol
[2008/09/09 12:39] Breen Mathy: (both? hehe
[2008/09/09 12:39] You: Weakly Interacting Massive Particles (They can't even do acronyms well)
[2008/09/09 12:39] Eshala Tabacznyk: lol
[2008/09/09 12:40] You: Or perhaps it's just that we didn't do the maths right on basic netonian dynamics?
[2008/09/09 12:40] You: Meaning there is no dark matter
[2008/09/09 12:40] You: we just got the maths wrong
[2008/09/09 12:40] You: These theories are called MOND
[2008/09/09 12:40] You: Modified Newtonian Dynamics

[2008/09/09 12:41] Titiana Haystack: but there's 95% we don't know about???

[2008/09/09 12:41] You: Perhaps we are THAT wrong!

[2008/09/09 12:41] You: I don't personally think so

[2008/09/09 12:41] smithb Windlow: How confident are they/we that they will be able to interpret what they see or don't see!

[2008/09/09 12:41] You: but many respected scientists do

[2008/09/09 12:42] You: Well Smith - Some of the results won't be immediately obvious

[2008/09/09 12:42] You: And the amount of data generated is HUGE

[2008/09/09 12:42] You: It will take many people a long time which is why some of us in this room are taking Physics degrees :)

[2008/09/09 12:42] You: Hopefully they won't resolve the problems with the standard model before we are done ;)

[2008/09/09 12:42] You: So this brings me to the next question

[2008/09/09 12:43] You: Read this news article.....

[2008/09/09 12:43] You: April 2007 - A £2 billion project to answer some of the biggest mysteries of the universe has been delayed by months after scientists building it made basic errors in their mathematical calculations.

The mistakes led to an explosion deep in the tunnel at the Cern particle accelerator complex near Geneva in Switzerland. It lifted a 20-ton magnet off its mountings, filling a tunnel with helium gas and forcing an evacuation.

It means that 24 magnets located all around the 17-mile circular accelerator must now be stripped down and repaired or upgraded. The failure is a huge embarrassment for Fermilab, the American national physics laboratory that built the magnets and the anchor system that secured them to the machine.

Can we trust the reassurances

that "nothing bad will happen"?

[2008/09/09 12:43] Eshala Tabacznyk: oops-a-daisy

[2008/09/09 12:44] You: oopps indeed

[2008/09/09 12:44] You: So this is question 2

[2008/09/09 12:44] Basic Chair: Right click me and choose 'Sit Here' to sit down

[2008/09/09 12:44] You: Can we trust the reassurances that

"Nothing bad will happen"

[2008/09/09 12:44] You: like me typing reassurances wrong

[2008/09/09 12:45] Eshala Tabacznyk: not reassuring lol

[2008/09/09 12:45] Merlin Ethaniel: If something bad does happen, I don't think we will be around long enough to worry.

[2008/09/09 12:45] Breen Mathy: Well if the world does end, there'll be egg on the scientists face

[2008/09/09 12:45] Penbleth Sweetwater: LOL

[2008/09/09 12:45] Lambchop Magic: lol

[2008/09/09 12:45] You: lol

[2008/09/09 12:45] Breen Mathy: Won't they be so embarrassed then

[2008/09/09 12:45] Eshala Tabacznyk: lol Breen

[2008/09/09 12:45] Eshala Tabacznyk: oh absolutely

[2008/09/09 12:45] Eshala Tabacznyk: they'll never live it down

[2008/09/09 12:45] smithb Windlow: I hope they put new bat's in the calculator

[2008/09/09 12:45] Titiana Haystack: thought it was a scientific term lol

[2008/09/09 12:45] Penbleth Sweetwater: And the geeks shall inherit the earth.

[2008/09/09 12:46] smithb Windlow: or distroy

[2008/09/09 12:46] You: CERN had an injunction taken out against it to stop the accelerator from switching on

[2008/09/09 12:46] You: Because of this, it had to review a study it did on the risks in 2003

[2008/09/09 12:46] Scathach Rhiadra: when you concisider the expensive they have made in the past , mixing imperial & metric measurements on some space projects, doesn't give a warm glow of confidence

[2008/09/09 12:46] You: THings like the creation of Black holes

[2008/09/09 12:47] Lambchop Magic: No I don't think there are any quartentees in anything

[2008/09/09 12:47] You: BUt the risks where considered infintesmally small

[2008/09/09 12:47] smithb Windlow: by them

[2008/09/09 12:47] Dom Easterwood: You can never account for every risk, but if we did not take risk we will never learn

[2008/09/09 12:47] You: Is anyone concerned that the world will end tommorow?

[2008/09/09 12:47] Scathach Rhiadra: and with so many scientists involved communication would have to be really good

[2008/09/09 12:47] Eshala Tabacznysk: when is the LHC all set to do it's stuff?

[2008/09/09 12:47] Merlin Ethaniel: If there weere guarantees, It wouldn't be worth doing science.

[2008/09/09 12:47] You: (Nothing intersting ever happens around here)

[2008/09/09 12:47] Titiana Haystack: got to end some time

[2008/09/09 12:47] Penbleth Sweetwater: no.

[2008/09/09 12:47] Sian Anel: no

[2008/09/09 12:47] Lambchop Magic: no

[2008/09/09 12:47] Firestone Bookmite: no

[2008/09/09 12:48] Merlin Ethaniel: Not fussed

[2008/09/09 12:48] Penbleth Sweetwater: you said it Merlin.

[2008/09/09 12:48] You: IT starts tomoorow Esh but doesn't do the really interesting stuff until 21st Octber

[2008/09/09 12:48] Eshala Tabacznysk: I hope not - I've got my assignment to finish!

[2008/09/09 12:48] smithb Windlow: Ask me a christmas

[2008/09/09 12:48] You: Interesting

[2008/09/09 12:48] Eshala Tabacznysk: ah so I'll see my next birthday then - phew

[2008/09/09 12:48] Titiana Haystack: don't bother until tomorrow evening Eas

[2008/09/09 12:48] You: Did you know that one of the British Scientists, Brian Cox, has recieved death threats>

[2008/09/09 12:48] Penbleth Sweetwater: Does that mean I can't get a new vamp outfit for halloween?

[2008/09/09 12:48] Breen Mathy: (would people rather it happen before or after the exams hehehe)

[2008/09/09 12:49] Titiana Haystack: Esh

[2008/09/09 12:49] Eshala Tabacznysk: lol Breen

[2008/09/09 12:49] Sian Anel: during the exams!

[2008/09/09 12:49] Lambchop Magic: lol Breen

[2008/09/09 12:49] You: SO you obviously trust the scientists have got it right?

[2008/09/09 12:49] Titiana Haystack: after my birthday in 2 weeks

[2008/09/09 12:49] Firestone Bookmite: It's after my exam

[2008/09/09 12:49] Titiana Haystack: want my pressies

[2008/09/09 12:49] Eshala Tabacznysk: mines 3 weeks Titiana

[2008/09/09 12:49] Merlin Ethaniel: Yes.

[2008/09/09 12:49] Dom Easterwood: As long as I get my marks after all the hard work I have put in

[2008/09/09 12:49] Titiana Haystack: 23rd Esh

[2008/09/09 12:49] Breen Mathy: do you know how made the detach threats to brian cox?

[2008/09/09 12:49] Breen Mathy: how=who

[2008/09/09 12:50] Eshala Tabacznysk: reason for failing course: world ended mid-ECA

[2008/09/09 12:50] Firestone Bookmite: yes to a reasonable degree

[2008/09/09 12:50] Breen Mathy: hahaha eshala

[2008/09/09 12:50] Lambchop Magic: lol esh

[2008/09/09 12:50] You: Yes Breen - They where emails

[2008/09/09 12:50] Breen Mathy: wow

[2008/09/09 12:50] Scathach Rhiadra: don't think we will be looking at some strange glow in the sky tomorrow morning and going 'oho'

[2008/09/09 12:50] You: Who ? I think they must know yes

[2008/09/09 12:50] Lambchop Magic: that is awful

[2008/09/09 12:50] You: lol@ESh

[2008/09/09 12:50] Eshala Tabacznysk: so what would be the signs of anything going wrong?

[2008/09/09 12:50] Eshala Tabacznysk: other than total oblivion

[2008/09/09 12:50] Titiana Haystack: sunbshine?

[2008/09/09 12:51] Eshala Tabacznysk: lmao

[2008/09/09 12:51] You: lol

[2008/09/09 12:51] Penbleth Sweetwater: no rain.

[2008/09/09 12:51] Breen Mathy: lol titiana

[2008/09/09 12:51] Lambchop Magic: ROFL

[2008/09/09 12:51] Penbleth Sweetwater: forat least five mins.

[2008/09/09 12:51] Eshala Tabacznysk: yeah if the sun shined I'd faint

[2008/09/09 12:51] Titiana Haystack: i never get laughs in RL

[2008/09/09 12:51] You: THat's a good question - What do you think you would see if something went wrong?

[2008/09/09 12:51] CC Exonar: sorry becka bit ive got to shoot, interesting stuff though

[2008/09/09 12:51] Eshala Tabacznysk: I forget what it looks like

[2008/09/09 12:51] You: Bye CC

[2008/09/09 12:51] Eshala Tabacznysk: bye CC

[2008/09/09 12:51] CC Exonar: bye all

[2008/09/09 12:51] Penbleth Sweetwater: By CC

[2008/09/09 12:51] Scathach Rhiadra: bye CC

[2008/09/09 12:51] Merlin Ethaniel: Bye CC

[2008/09/09 12:51] Lambchop Magic: bye cc

[2008/09/09 12:51] Sian Andel: bye

[2008/09/09 12:51] smithb Windlow: bye

[2008/09/09 12:51] Minnie Atlass: byeee

[2008/09/09 12:51] Titiana Haystack: I thihnk we'ds hear rumbling

[2008/09/09 12:52] DeeDee Bookmite: if it goes wrong the solar system will get sucked into a black hole and we'll all be history?

[2008/09/09 12:52] Lambchop Magic: life flashing before my eyes

[2008/09/09 12:52] Eshala Tabacznysk: maybe it would all go dark

[2008/09/09 12:52] Scathach Rhiadra: maybe plasma storms?

[2008/09/09 12:52] smithb Windlow: If its a black hole. maby we here nothing

[2008/09/09 12:52] Titiana Haystack: like the world with a hangover

[2008/09/09 12:52] Breen Mathy: If a black hole was formed and swallowed the earth it would happen fast, ritht?

[2008/09/09 12:52] DeeDee Bookmite: no we wouldn't know much about it

[2008/09/09 12:52] You: I knew it would involve alcohol

[2008/09/09 12:52] Titiana Haystack: good escuse to eat drink and be merry this evening

[2008/09/09 12:53] Eshala Tabacznyk: lol

[2008/09/09 12:53] You: Yes Breen. If something on that scale happened, we would know nothing about it

[2008/09/09 12:53] Breen Mathy: lol titiana again

[2008/09/09 12:53] Merlin Ethaniel: we're students. What else can we do?

[2008/09/09 12:53] Dom Easterwood: But it would be interesting to find out if there is any thing on the other side of a black hole

[2008/09/09 12:53] You: BLIP - We would be gone

[2008/09/09 12:53] Eshala Tabacznyk: I bet those people who walk around with the "end of world is nigh" A-boards are having a field day!

[2008/09/09 12:53] smithb Windlow: Are the evacuation plans in place.

[2008/09/09 12:53] Sian Andel: would it depend on the mass of the balck hole? could be a slow leak via Switzerland

[2008/09/09 12:53] You: WHat makes you think there is an "other side" dom?

[2008/09/09 12:53] Titiana Haystack: until tomorrow, or later

[2008/09/09 12:53] You: Hi Anton

[2008/09/09 12:53] DeeDee Bookmite: lol Esh

[2008/09/09 12:53] Penbleth Sweetwater: Not get sucked to another quadrant?

[2008/09/09 12:54] You: Ah Star trek has a lot to answer for ;)

[2008/09/09 12:54] Eshala Tabacznyk: I guess we should keep an eye on Switzerland - if it starts to go a funny shape then panic!

[2008/09/09 12:54] Breen Mathy: hehe

[2008/09/09 12:54] Penbleth Sweetwater: Ok "Q".

[2008/09/09 12:54] You: OK - So i'm really happy that no-one is worried - You shouldn't be

[2008/09/09 12:54] Merlin Ethaniel: It Alsys was a funny shape

[2008/09/09 12:54] Eshala Tabacznyk: what shape is it anyway?

[2008/09/09 12:54] You: lol

[2008/09/09 12:54] You: a funny shape

[2008/09/09 12:54] Titiana Haystack: landlocked

[2008/09/09 12:54] Titiana Haystack: pearshaped!

[2008/09/09 12:54] You: if it starts going a funnier shape.....

[2008/09/09 12:54] Merlin Ethaniel: with a navy!

[2008/09/09 12:54] Eshala Tabacznyk: ok well if it goes a normal shape we should panic then lol

[2008/09/09 12:55] Merlin Ethaniel: lol

[2008/09/09 12:55] Lambchop Magic: lol

[2008/09/09 12:55] Eshala Tabacznyk: I'm gonna get my map out

[2008/09/09 12:55] Dom Easterwood: Send it spock and scotty

[2008/09/09 12:55] Eshala Tabacznyk: and draw it

[2008/09/09 12:55] You: lol

[2008/09/09 12:55] smithb Windlow: I wish I had sold my swiss francs now

[2008/09/09 12:55] Eshala Tabacznyk: just in case

[2008/09/09 12:55] Minnie Atlass: worried.. narghhh..c'est la vi

[2008/09/09 12:55] You: If you learned nothing tonight it is the shape of switzerland and the state of it's navy

[2008/09/09 12:55] Titiana Haystack: wish I had spent instead of saved

[2008/09/09 12:55] Eshala Tabacznyk: lol Becka
[2008/09/09 12:55] Eshala Tabacznyk: these meetings are so enlightning
[2008/09/09 12:55] Penbleth Sweetwater: Who you calling Spock, Dom?
[2008/09/09 12:56] You: lol
[2008/09/09 12:56] Minnie Atlass: lol
[2008/09/09 12:56] Eshala Tabacznyk: anyway I have a serious question
[2008/09/09 12:56] Penbleth Sweetwater: I would rather be 7 of nine.
[2008/09/09 12:56] Eshala Tabacznyk: and you can all laugh at my
ignorance if you wish
[2008/09/09 12:56] Titiana Haystack: go on
[2008/09/09 12:56] Titiana Haystack: ha ha ha
[2008/09/09 12:56] You: OK - We over ran on the first question so to the
last - we have 5 minutes
[2008/09/09 12:56] Dom Easterwood: from star trek allways manage to put
thing right
[2008/09/09 12:56] Minnie Atlass: serious you... blimey
[2008/09/09 12:56] Eshala Tabacznyk: is this LHC the same thing as
mentioned in Dan Browns book (forgot name)
[2008/09/09 12:56] Arisia Vita is Online
[2008/09/09 12:56] Merlin Ethaniel: almost.
[2008/09/09 12:56] You: Angels and Demons
[2008/09/09 12:56] You: yes it is
[2008/09/09 12:56] Eshala Tabacznyk: I know Minnie - I'll revert to type
in a moment
[2008/09/09 12:57] Eshala Tabacznyk: ah right thank you
[2008/09/09 12:57] Breen Mathy: what did dan brown say about it?
[2008/09/09 12:57] Minnie Atlass: oh please do... i feel like i don't
know ya :P
[2008/09/09 12:57] Titiana Haystack: endof question/answer lol
[2008/09/09 12:57] You: YW - It's a good book
[2008/09/09 12:57] Penbleth Sweetwater: nothing sensible, Breen.
[2008/09/09 12:57] Eshala Tabacznyk: the book was based around a crime
at the CERN lab
[2008/09/09 12:57] Eshala Tabacznyk: and this particle collider thing
was mentioned
[2008/09/09 12:57] Titiana Haystack: Couldn't be bothered after reading
his first one
[2008/09/09 12:58] Breen Mathy: oh I see
[2008/09/09 12:58] You: lol - The film is coming out soon so you can go
see it :)
[2008/09/09 12:58] You: saves reading the book
[2008/09/09 12:58] Eshala Tabacznyk: oh good lol
[2008/09/09 12:58] Breen Mathy: Something you said becka interested me
earlier, can the protestors say they'll be a delayed reaction?
[2008/09/09 12:58] You: So - the LHC has some 8000 scientists working on
it
[2008/09/09 12:58] Breen Mathy: I'm wondering if the lhc can run for
months, adn they'll stil l be protesting
[2008/09/09 12:58] Penbleth Sweetwater: As a librarian, I would usually
say read the book but not in Dan's case.
[2008/09/09 12:58] You: From Rutherford who worked alone
[2008/09/09 12:58] You: To that in a century
[2008/09/09 12:59] Sian Andel: wow
[2008/09/09 12:59] You: I asked a top scientist if there was any room
for the lone scientists in Modern SCience
[2008/09/09 12:59] Titiana Haystack: agreed Pen
[2008/09/09 12:59] You: He told me all the small stuff has been done
[2008/09/09 12:59] Penbleth Sweetwater: How does he know?

[2008/09/09 12:59] You: It's expensive now. So the final question is.....

Are the days of individuals making a

difference in scientific discovery limited or over?

[2008/09/09 12:59] Firestone Bookmite: Can I ask, why is there a fear of black holes forming ?.

[2008/09/09 13:00] Merlin Ethaniel: nah

[2008/09/09 13:00] DeeDee Bookmite: wasn't it a teenager who come up with the string theory?

[2008/09/09 13:00] Lambchop Magic: no to question three

[2008/09/09 13:00] Dom Easterwood: no

[2008/09/09 13:00] Titiana Haystack: sciennists depend on money from govt. etc. and have to tow the line

[2008/09/09 13:00] Lambchop Magic: but I would also be interested in an answer to

Firestones question

[2008/09/09 13:00] Sian Andel: no

[2008/09/09 13:00] Penbleth Sweetwater: Probably not.

[2008/09/09 13:00] Breen Mathy: Isn't it because the cern scientists calclated the risk of a black hole forming?

[2008/09/09 13:01] You: Sure Firestone.

[2008/09/09 13:01] Scathach Rhiadra: people hear black hole and think of the massive ones at centre of galaxies, there are also micro black holes

[2008/09/09 13:01] You: Sorry - was preparing something

[2008/09/09 13:01] smithb Windlow: There's always room for a NEW idea

[2008/09/09 13:01] You: People were worried that at the energys those particles are colliding, they would create a black hole and it would swallow the earth

[2008/09/09 13:02] Merlin Ethaniel: When Einstein discovered his theories, they said that everything in physics had been done.

[2008/09/09 13:02] You: But the Sun produces cosmis rays that are many magbitudes larger then the energys produced in the LHS

[2008/09/09 13:02] You: LHC

[2008/09/09 13:02] smithb Windlow: Mut the sun is not in our back yard

[2008/09/09 13:02] smithb Windlow: But

[2008/09/09 13:02] Lambchop Magic: ty so if a Black Hole is produced it is likely to be extremel smalll?

[2008/09/09 13:03] Titiana Haystack: magbitudes. another new term

[2008/09/09 13:03] Firestone Bookmite: thank you

[2008/09/09 13:03] Merlin Ethaniel: So for becka's last question, There is always roomfor the little guy.

[2008/09/09 13:03] Scathach Rhiadra: oh yes it is!

[2008/09/09 13:03] You: Yes Merlin. But the biggest problem with the standard model is that all the forces come together at the largest energys (Called the Grand Unified Theory or GUT for short)

[2008/09/09 13:03] You: Yes Merlin. But the biggest problem with the standard model is that all the forces come together at the largest energys (Called the Grand Unified Theory or GUT for short)

[2008/09/09 13:03] DeeDee Bookmite: yes sometimes it is the little guy who makes the most significant discoveries

[2008/09/09 13:03] You: But Gravity doesn't fir this model

[2008/09/09 13:03] You: fit

[2008/09/09 13:04] You: And I think this is where the little guy is king (Or girl is queen)

[2008/09/09 13:04] You: :)

[2008/09/09 13:04] Scathach Rhiadra: yay

[2008/09/09 13:04] You: Big ideas need little people skiving off work to make a difference :)

[2008/09/09 13:04] Titiana Haystack: Has anyone heard of the Solar Helium Indicator Transmitter?

[2008/09/09 13:04] Merlin Ethaniel: may be we should all club together and work on a theory of gravity

[2008/09/09 13:04] Eshala Tabacznyk: I've got a map of Switzerland to take to work with me so everyone can memorise it - just in case

[2008/09/09 13:04] You: you get what I mean?

[2008/09/09 13:05] Eshala Tabacznyk: lol Titiana cant say as I have

[2008/09/09 13:05] Titiana Haystack: (sorry, being naughty)

[2008/09/09 13:05] You: Merlin - Maybe that's a future project for the budding scientists in this room?

[2008/09/09 13:05] DeeDee Bookmite: lol Titania

[2008/09/09 13:05] You: lol @Titiana

[2008/09/09 13:05] You: or titania

[2008/09/09 13:05] You: as I used to say

[2008/09/09 13:05] You: :)

[2008/09/09 13:05] Titiana Haystack: no Titiana

[2008/09/09 13:05] Titiana Haystack: oh

[2008/09/09 13:05] You: OK - Soo we are all agreed that there is plenty of room at the bottom?

[2008/09/09 13:06] Merlin Ethaniel: Have read a lot of Hawking and Kip Thorne. Working on theory as we speak.

[2008/09/09 13:06] Eshala Tabacznyk: yes

[2008/09/09 13:06] Scathach Rhiadra: yes

[2008/09/09 13:06] Dom Easterwood: yes

[2008/09/09 13:06] Merlin Ethaniel: yes!!

[2008/09/09 13:06] smithb Windlow: yep

[2008/09/09 13:06] Lambchop Magic: yes

[2008/09/09 13:06] Minnie Atlass: yep

[2008/09/09 13:06] Breen Mathy: yes, I'm used to being at the bottom

hehe

[2008/09/09 13:06] Eshala Tabacznyk: loads of space at the bottom too

[2008/09/09 13:06] You: That's a quote from a very famous Scientist

[2008/09/09 13:06] Sian Anandel: yes for ideas, but the proof may need money

[2008/09/09 13:06] You: me too :)

[2008/09/09 13:06] You: Any questions?

[2008/09/09 13:06] Scathach Rhiadra: and if thay fail to find the Higgs boson, thay will have to start at the begining and find new models

[2008/09/09 13:06] You: excpet themeaning of life

[2008/09/09 13:06] Titiana Haystack: no but thanks a lot. SO interesting

[2008/09/09 13:07] Lambchop Magic: ty that was very interesting

[2008/09/09 13:07] Eshala Tabacznyk: I have asked my one serious question for the week!

[2008/09/09 13:07] Strangie Vaher: can you start again? I missed the first one or two minutes

[2008/09/09 13:07] Merlin Ethaniel: Exce;lent meeting, so much better than the ones at work

[2008/09/09 13:07] Breen Mathy: It's being really interesting thank you becka

[2008/09/09 13:07] You: I think failing to find the Higgs is as exciting as finding it

[2008/09/09 13:07] Eshala Tabacznyk: Minnie panics if I get too serious about things

[2008/09/09 13:07] Sian Andel: how long do they wait to confirm they've found nothing - should posiitveresults appear immediately?

[2008/09/09 13:07] DeeDee Bookmite: ty Becca

[2008/09/09 13:07] Eshala Tabacznyk: it's been intersting - I have learnt a lot

[2008/09/09 13:07] You: The chatlog will be up on the science discussion group Strangie

[2008/09/09 13:07] Strangie Vaheer looks at the ceiling and whistles

[2008/09/09 13:07] smithb Windlow: Well I feel much better now ;-)

[2008/09/09 13:08] You: Your welocme Breen

[2008/09/09 13:08] Scathach Rhiadra: exactly Becca, more work for future scientists

[2008/09/09 13:08] Penbleth Sweetwater: Thanks Becca.

[2008/09/09 13:08] Lambchop Magic: Is everyone ok with a transcript going in the FC forum events folders

[2008/09/09 13:08] Strangie Vaheer: thanks becca

[2008/09/09 13:08] Eshala Tabacznyk: ty Becca

